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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,563

06/30/2003

Michael J. Berardi

60655.0100

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08/11/2004

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EXAMINER

HESS, DANIEL A

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,563

Applicant(s)

BERARDI ET AL.

Examiner

Daniel A Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-35, 39 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, each independent claim associated with the above claims includes a limitation that a transponder system interfaces with the card surface. This is technically incorrect: The transponder system interfaces some interrogator system that is external to the card. Appropriate clarification and correction is required.

Claims 5, 6, 16-18, 20-22, 24-27, 29, 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5, 6, 16-18 and 20-22 identify compositions of a machine recognizable compound. However, the claims are indefinite because amounts in weights are given. This would only have meaning if the entire weight of the whole composition were given. Appropriate clarification and correction is required.

Claims 24-27, 29, 31 and 32 are dependent on the above claims and are therefore also rejected under 35 USC 112.

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Claims 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 26 and 27 recite the limitation "said transponder system protocol sequence controller". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

Claims 1, 2, 4, 5, 7-11, 13, 14, 19, 23, 25 and 28-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer et al. (GB-A-1,371,254) in view of Mundigl et al. (US 5,809,633).

Re claim 1: Kilmer teaches a card that is transparent in the visible range (page 1, line 37). There are a plurality of layers: a first layer, PVC that is permeable in visible and infrared (page 1, lines 40-46) and a second layer of PVAC that is permeable in the visible but machine recognizable in the infrared (page 1, lines 46-50). Machine readability is based on gallium arsenide detectors (page 1, line 35, 55-60 and 75-80). There is coding in the form of perforations (punched holes in the PVAC layer – page 1, line 58).

Kilmer fails to teach that the card contains one or more transponders.

Mundigl teaches (entire document) a card with and RFID transponder system.

In view of Mundigl's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known RFID / transponders of

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Mundigl in the card of Kilmer because this permits sophisticated data exchange with the card by radio.

As for having multiple transponders, this can be considered repetition of parts, with the clear advantage of redundancy in case one system breaks.

As for a 'transponder system database' this can be something as simple as one piece of data. All transponders generally have at least an ID.

Re claim 2: The claim recites many types of cards, all of which Kilmer's system could be used for.

Re claims 4/5: There is coding in the form of perforations (punched holes in the PVAC layer – page 1, line 58).

Re claim 7: As discussed re claim 1 above, the presence of a second RF interrogation system would have been an obvious repetition of parts in case a first interrogation system failed.

Re claim 8: Polymers are simply plastics, which are notoriously old and well known in cards.

Re claim 9/10/14: See Kilmer, page 1, lines 46-50: The infrared (i.e. invisible) compound is at least a chemical.

Re claim 11: Substitution of the compound of Kilmer with infrared inks would be equivalent: Wessel (US 4,583,766) is exemplary.

Re claim 13: Infrared is optically recognizable.

Re claim 19: PET plastic is a known material in the art to achieve durability: Riedl (US 5,928,788) uses PET compounds (column 2, line 52) and notes (column 1, lines 45-50) that

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they improve the temperature resistance and physical durability of the card as well as enhance recyclability.

In view of Riedl's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known PET because PET compounds produce a more durable card.

Re claim 23/25: Again, duplication of components, which has been discussed re claim 1 above can be considered obvious. One would have been motivated to have such a system so that two communication channels can be open simultaneously, increasing bandwidth, in the same way that a computer network has more bandwidth with more pathways.

Re claim 28: Normally a transponder communicates at least an ID; this can be considered standard.

Re claim 29: Opening communication channels by employing encryption has long been known in the art. Witness, for example, SSL on the Internet.

Re claim 30: Batteries in smart cards have long been known; there are many examples thereof.

Re claims 31/32: Cards with biometric security are old and well-known in the art; the motive is added security. See for example, US 6,494,380.

Re claim 33: The card resulting from the combination of Kilmer and Mundigl re claim 1 above meets the limitations of claim 33.

Re claim 34: See discussion re claim 2 above.

Re claim 35: Kilmer uses what can be considered a coating.

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Re claim 36: Kilmer/Mundigl teach most of the claimed limitations. It is notoriously old and well-known in the art that both magnetic stripes and holograms can be added to cards for added information-bearing and/or security.

Re claim 37: See discussion re claim 19 (i.e. Riedl) on the use of PET layers for strength / durability.

Re claim 38: Adhering card layers with adhesive or laminate is a technique which is employed in the vast majority of all plastic cards.

Re claim 39/40: See discussion re claim 1, above.

Re claim 41: Most limitations have been met in the discussion of claim 1, above. See discussion of claim 19 for use of PET layers.

Re claim 42: Most limitations have been met in the discussion of claim 1, above. PVC plastic is just one of many materials which can be used in cards for sturdiness and durability.

Claims 3, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer as modified by Mundigl as applied to claim 1 above, in further view of Koshizuka et al. (US 5,407,893).

Kilmer/Mundigl lacks a teaching that the 2nd layer is extrusion-coated to the first.

Koshizuka teaches (column 10, lines 15-16 and 19-20) extrusion coating to bond layers together.

In view of Koshizuka's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known extrusion coating

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as taught by Koshizuka into the teachings of Kilmer because this helps achieve high stiffness and excellent durability (Koshizuka , column 1, lines 5-10).

Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer/Mundigl as applied to claim 1 above, in view of Blumel et al. (US 4,672,021).

Kilmer/Mundigl fails to specifically point out the presence of one of a binder, UV absorber, reflector, antioxidant, optical brightener, color shifter, chemical to improve processing, or a chemical to adjust rheological properties.

Blumel shows (see title; abstract, lines 8-11) a layer compound applied to a substrate having dye and a binder.

In view of Blumel's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known binder in a dye compound which is applied to a surface as taught by Blumel because, a binder helps facilitate sticking to the surface on which a compound is placed, and it is desirable to have a infrared-blocker stick permanently to the surface of the card of Kilmer.

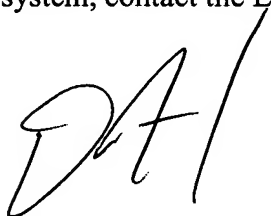
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH

Daniel A Hess
Examiner
Art Unit 2876

**DANIEL STCYR
PRIMARY EXAMINER**

